SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: DATA BASE MANAGEMENT II

Code No.: EDP319-4

Program: BUSINESS DATA PROCESSING

Semester: FIVE

Date: 1985 08

Author: DENNIS OCHOSKI

New: _____ Revision: X

APPROVED: _____ Date: 85-06-07

Chairperson

DATA BASE MANAGEMENT II

EDP319-4

Length of Course:

4 periods per week for one semester

Required Texts:

Database Processing - David Kroenke

SEED A.D.S. (Application Development System) Pocket Guide

SEED D.S.O. (Decision Support Option) Pocket Guide

Other References:

Managing the Data-Base Environment - James Martin

Database & Data Communications Systems: A Guide for Managers - Myles E. Walsh

SEED KERNEL User Guide

SEED BLOOM User Guide

SEED HARVEST User Guide

Purpose:

This is a continuation of Data Base Management I.

The course will extend the concepts of database management to include such topics as the use of data dictionaries, the various types of database management systems, backup and recovery, privacy and security, and the role of Database Administration.

Practical applications will be developed to encompass more advanced design and data base access. This again, will be accomplished through the use of SEED.

Specific Objectives:

When this course is completed the student will be able to;

(1) design, code, and implement an efficient CODASYL data base that functions to its specifications,

(2) design a data base with respect to other types of database management systems. These will incude the relational database and IBM's Data Language/1 database,

(3) construct a data dictionary by understanding it's importance and use in a database environment,

(4) implement proper security features into a database system,

(5) apply the concepts of backup and recovery in maintaining a databse system,

(6) list the functions of Database Administration.

Student Evaluation :

The student's final grade will consist of the following components:

Tests (2 x 30)	60%	Grading:	A -- 85 to 100%
Assignment #1	10%		B -- 70 to 84
Assignment #2	30%		C -- 60 to 69
	100%		R -- 0 to 59

Assignment Deadlines: each assignment must be handed in ON TIME, otherwise they are subject to a 10% deduction per day late.

Note : A student will be allowed to do a re-write if :

(1) he/she has a passing final grade and wants to better that grade,

(2) he/she does not have a passing final grade and that grade is 50% or better, and,

(3) he/she has completed all assignments.

Material to be Covered:

PART A:

TOPIC	DESCRIPTION	REFERENCE
1	Review	Kroenke
	- what is database processing - advantages and disadvantages - logical record relationships - trees, simple networks, and complex networks - logical and physical database design - CODASYL data base	Chapters 1,4,5,9
2	The Data Base Management System	Kroenke Chapter 11 Lecture notes
	- definition of a DBMS - objectives of a DBMS - responsibility for functions - choosing a DBMS - impact of DBMS on design decisions	
3	Database Privacy and Security	Kroenke Chapter 11 Lecture notes
	- types of security exposure - levels and methods of privacy control - enhancing database security, availability, and integrity	
4	Database Backup and Recovery	Kroenke Chapter 11 Lecture notes
	- database recovery methods - archive files - check points - database system restart	
5	Data Dictionaries	Lecture notes
	- definition of a data dictionary - how a data dictionary system works - selecting a data dictionary system	

TOPIC	DESCRIPTION	REFERENCE
6	The Functions of Data Base Administration	
	- functional responsibilities of the DBA - database economics and control - elements of the long-range plan - management issues in the database plan	Kroenke Chapter 3
7	Relational Data Bases	Kroenke Chapter 7,8
	- data definition - data manipulation - normal forms - design criteria	
8	IMS (Data Language/1)	Kroenke Appendix A Lecture notes
	- definition of conceptual hierarchical data base - the IMS storage data base - manipulating an IMS data base with DL/1	